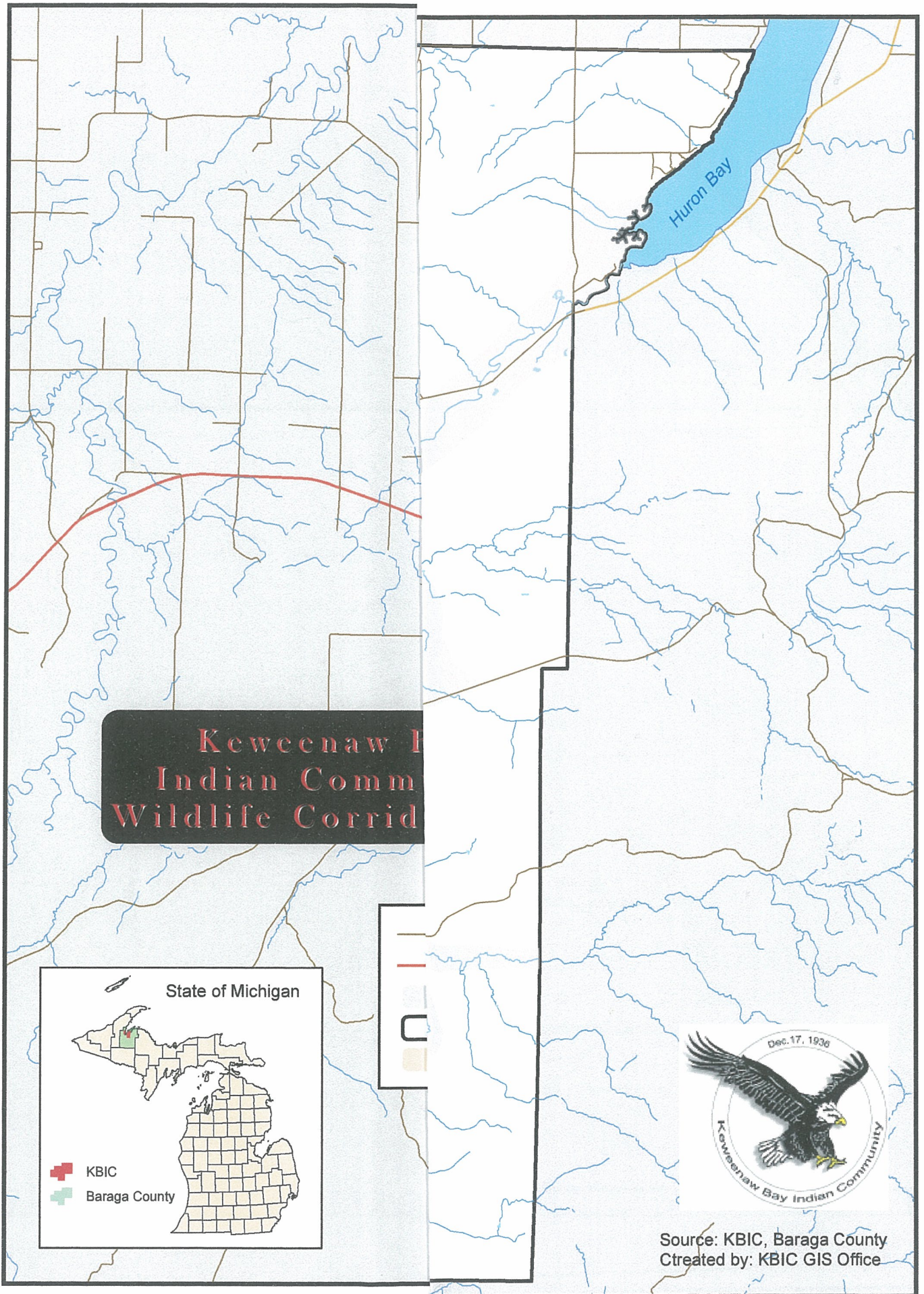
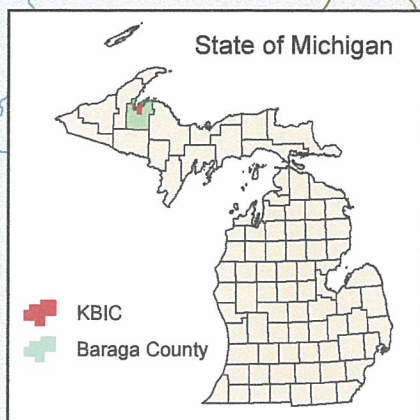


APPENDIX S:

Wetlands, Wildlife and Wild Rice Information



**Keweenaw Indian Community
Wildlife Corridor**



Source: KBIC, Baraga County
Created by: KBIC GIS Office

Wetlands

<u>Common Name</u>	<u>Scientific Name</u>
Wolf	<i>Canis lupus</i>
Coyote	<i>Canus latrans</i>
Red Fox	<i>Vulpes vulpes</i>
Gray Fox	<i>Urocyon cinereoargenteus</i>
Domestic Dog	<i>Canis familiaris</i>
Bobcat	<i>Lynx rufus</i>
Otter	<i>Lutra canadensis</i>
Skunk	<i>Mephitis mephitis</i>
Fisher	<i>Martes pennanti</i>
Marten	<i>Martes americana</i>
Mink	<i>Mustela vison</i>
Weasel	<i>Mustela spp.</i>
Badger	<i>Taxidea taxus</i>
Beaver	<i>Castor canadensis</i>
Muskrat	<i>Ondatra zibethicus</i>
Porcupine	<i>Erethizon dorsatum</i>
Red Squirrel	<i>Tamiasciurus hudsonicus</i>
Chipmunk	<i>Tamius striatus</i>
Flying Squirrel	<i>Glaucomys spp.</i>
Snowshoe hare	<i>Lepus americanus</i>
Raccoon	<i>Procyon lotor</i>
White-tailed deer (adult and fawn)	<i>Odocoileus virginianus</i>
Moose	<i>Alces alces</i>
Bear (mature, immature, cub)	<i>Ursus americanus</i>

Birds

Common name

Scientific Name

Alder Flycatcher	<i>Empidonax alnorum</i>
American Bittern	<i>Botaurus lentiginosus</i>
American Redstart	<i>Setophaga ruticilla</i>
American Robin	<i>Turdus migratorius</i>
American Tree Sparrow	<i>Spizella arborea</i>
Bald Eagle	<i>Haliaeetus leucocephalus</i>
Barred Owl	<i>Strix varia</i>
Bay Breasted Warbler	<i>Dendroica castanea</i>
Blackburnian Warbler	<i>Dendroica fusca</i>
Black-Throated Blue Warbler	<i>Dendroica caerulescens</i>
Black-Throated Green Warbler	<i>Dendroica virens</i>
Black-and-White Warbler	<i>Mniotilta varia</i>
Blue Jay	<i>Cyanocitta cristata</i>
Brewers Blackbird	<i>Euphagus cyanocephalus</i>
Broadwinged Hawk	<i>Buteo platypterus</i>
Brown Creeper	<i>Certhia americana</i>
Brown Headed Cowbird	<i>Molothrus ater</i>
Bufflehead	<i>Bucephala albeola</i>
Canada Warbler	<i>Wilsonia canadensis</i>
Canada Goose	<i>Branta canadensis</i>
Cape May Warbler	<i>Dendroica tigrina</i>
Gray Catbird	<i>Dumetella carolinensis</i>
Cedar Waxwing	<i>Bombycilla cedrorum</i>
Cerulean Warbler	<i>Dendroica cerulea</i>
Chestnut-Sided Warbler	<i>Dendroica pensylvanica</i>
Chickadee, Black capped	<i>Poecile atricapillus</i>
Chipping Sparrow	<i>Spizella passerina</i>
Common Merganser	<i>Mergus merganser</i>
Common Yellowthroat	<i>Geothlypis trichas</i>
Connecticut Warbler	<i>Oporornis agilis</i>
Crow, American	<i>Corvus brachyrhynchos</i>
Dark-eyed Junco	<i>Junco hyemalis</i>
Downy Woodpecker	<i>Picoides pubescens</i>
Eastern Kingbird	<i>Tyrannus tyrannus</i>
Eastern Phoebe	<i>Sayornis phoebe</i>
Eastern Wood Peewee	<i>Contopus virens</i>
Golden-Crowned Kinglet	<i>Regulus satrapa</i>
American Goldfinch	<i>Spinus tristis</i>
Golden Winged Warbler	<i>Vermivora chrysoptera</i>
Grackle, Common	<i>Quiscalus quiscula</i>
Gray Cheeked Thrush	<i>Catharus minimus</i>
Great Gray Owl	<i>Strix nebulosa</i>

Green Heron
Great Horned Owl
Great Blue Heron
Greater Yellow Legs
Great Crested Flycatcher
Hairy Woodpecker
Hermit Thrush
Herring Gull
Hooded Merganser
Humming bird, Ruby Throated
Indigo Bunting
Killdeer
Belted Kingfisher
Least Bittern
Least Flycatcher
Le Contes Sparrow
Lincoln's Sparrow
Loon, Common
Magnolia Warbler
Mallard
Marsh Wren
Mourning Warbler
Mourning Dove
Nashville Warbler
Northern Harrier
Northern Parula
Northern Waterthrush
Northern Flicker
Ovenbird
Palm Warbler
Pileated Woodpecker
Pine Warbler
Pine Siskin
Prothonotary Warbler
Purple Finch
Raven, Common
Red Eyed Vireo
Red-Tailed Hawk
Red-Winged Blackbird
Ring-billed Gull
Ring-Neck Duck
Red-Breasted Nuthatch
Rose Breasted Grosbeak
Northern Rough-Winged Swallow

Butorides virescens
Bubo virginianus
Ardea herodias
Tringa melanoleuca
Myriarchus crinitus
Picoides villosus
Catharus guttatus
Larus argentatus
Lophodytes cucullatus
Archilochus colubris
Passerina cyanea
Charadrius vociferus
Ceryle alcyon
Ixobrychus exilis
Empidonax minimus
Ammodramus leconteii
Melospiza lincolnii
Gavia immer
Denroica magnolia
Anas platyrhynchos
Cistothorus palustris
Oporornis philadelphia
Zenaida macroura
Vermivora ruficapilla
Circus cyaneus
Parula americana
Seiurus noveboracensis
Colaptes auratus
Seiurus aurocapillus
Denroica palmarum
Dryocopus pileatus
Dendroica pinus
Spinus pinus
Protonotaria citrea
Carpodacus purpureus
Corvus corax
Vireo olivaceus
Buteo jamaicensis
Agelaius phoeniceus
Larus delawarensis
Aythya collaris
Sitta canadensis
Pheucticus ludovicianus
Stelgidopteryx serripennis

Ruby Crowned Kinglet
Ruffed Grouse
Rusty Blackbird
Sandhill Crane
Scarlet Tanager
Sharpshinned Hawk
Snipe, Common
Solitary Sandpiper
Song Sparrow
Sora Rail
Spotted Sandpiper
Swainson's Thrush
Swamp Sparrow
Tennessee Warbler
Tree Swallow
Trumpeter Swan
Upland Sandpiper
Veery
Virginian Rail
Warbling Vireo
Whip-poor-will
White Breasted Nuthatch
White Crowned Sparrow
White Throated Sparrow
Wilson's Warbler
Winter Wren
American Woodcock
Wood Duck
Wood Thrush
Yellow-Rumped Warbler
Yellow Warbler
Yellow-Bellied SapSucker
Yellow-Throated Vireo
Yellow-Bellied Flycatcher
Oriole, Baltimore
Blue-headed vireo
Double-Crested Cormorant
Eastern Bluebird
European Starling
Evening Grosbeak
Gray Jay
Hooded Warbler
House Finch
Northern Mockingbird

Regulus calendula
Bonasa umbellus
Euphagus carolinus
Grus canadensis
Piranga olivacea
Accipiter striatus
Gallinago gallinago
Tringa solitaria
Melospiza melodia
Porzana carolina
Actitis macularia
Catharus ustulatus
Melospiza georgiana
Vermivora peregrina
Tachycineta bicolor
Cygnus buccinator
Bartramia longicauda
Catharus fuscescens
Rallus limicola
Vireo gilvus
Caprimulgus vociferus
Sitta carolinensis
Zonotrichia albicollis
Zonotrichia leucophrys
Wilsonia pusilla
Troglodytes troglodytes
Scolopax minor
Aix sponsa
Hylocichla mustelina
Denroica coronata
Dendroica petechia
Sphyrapicus varius
Vireo flavifrons
Empidonax flaviventris
Icterus galbula
Vireo solitarius
Phalacrocorax auritus
Sialia sialis
Sturnus vulgaris
Coccothraustes vespertinus
Perisoreus canadensis
Wilsonia citrina
Carpodacus mexicanus
Mimus polyglottos

Osprey
Pied-Billed Grebe
Red-Bellied Woodpecker
Redpoll, Common
Turkey Vulture
Vesper Sparrow
Wild Turkey

Pandion haliaetus
Podilymbus podiceps
Melanerpes carolinus
Acanthis flammea
Cathartes aura
Pooecetes gramineus
Meleagris gallopavo



Keweenaw Bay



Natural Resources Department

Keweenaw Bay Indian Community Waterfowl Index Report And Wild Rice Report

Results For 2010

By

**Pamela Nankervis
Evelyn Ravindran**

November 2010



**Keweenaw Bay Indian Community
Natural Resources Department**



14359 Pequaming Road
L'Anse, Michigan 49946

contacted and asked to remove some derelict machinery he had on tribal property. A trail was cleared from the Old U.S. 41 to the channel connecting upper and lower lakes. Floating docks on upper western lake were maintained. Permanent water quality and depth gauging stations were added to an upper and lower lake site. Also, permanent sites were made for measuring wild rice crop densities. In 2009, an additional trail was cleared and a series of floating docks were installed to allow access to a small island. There was also maintenance completed on the observation tower to improve steps to the upper observation deck.

Pinery Lakes has been removed as of 2009 from the waterfowl survey route due to the low water levels and lack of activity. Pinery lakes are more suitable for shorebirds as one of the two lakes became mud flats and the second lake is extremely shallow ($< 12''$). A family of beaver was still attempting to maintain two lodges on the property but is not expected to remain there. Also, a fire spread through the area in 2009 and burned a total of 685 acres that encompassed the survey site.

Head of the Keweenaw Bay is located between L'Anse and Baraga where KBIC owns a 25 acre parcel of wetland associated with Menge Creek (labeled as Head of Bay/Menge Creek on Figure 1). Due to the important ecological functions of the entire wetland and open water located here, surveillance of waterfowl was conducted annually from 2004 to 2010. Wild rice plantings were done annually from 2004 to 2009. Interstate highway 41 travels around the bay with a several gravel parking areas established along the edges of the wetland. Several private homes are also built along the head of the bay.

Huron Bay is located in the northeast corner of the KBIC L'Anse Indian Reservation. KBIC currently owns a 112 acre parcel of wetland. There is a network of sloughs, shallow water tributaries and deep open water (≥ 6 ft) that is visited annually by hundreds of migrating waterfowl. Monitoring was initiated in 2007 to see if Huron Bay should be added as long-term surveillance point. Access and viewing stations need to be addressed to make this a more thorough survey site. Numbers of waterfowl sighted may not accurately depict how many are actually on site due to various inlets that are not visible from the current viewing locations. A boat would be the most effective way to access the sloughs where hundreds of migrating waterfowl stopover to rest and feed. Therefore, much of the waterfowl data is obtained weekly from local duck hunters and we greatly appreciate their time and care in counting the waterfowl and reporting back to us. This issue will be considered for future project proposals.

sheet (Appendix 1). On many days, two observers conducted the survey, and conferred with each other before information was recorded.

Viewing took place from specified observation points. The number of species and individuals seen on the water and flying overhead were recorded for each visit. When two observers went to different observation points at the same site, they prearranged and conferred at the end of the site survey before recording information to keep from overlapping observations. Prearrangement included: selecting observation points so all areas were covered without overlapping, noting time and directions of flyovers, and dividing equipment and reference material. Sightings of endangered bird species, culturally significant species, and other points of interest were also recorded.

Results

In 2010, waterfowl surveys took place weekly for 14 consecutive weeks at the Head of Keweenaw Bay, 12 weeks at Mud Lakes and Sand Point, and 11 weeks at Huron Bay. The average number of waterfowl observed per site visit of 62.3 waterfowl seen per visit in 2010 was most similar to 2007 (64.2 waterfowl per visit) and higher than last year's average of 24.1 waterfowl observed per visit in 2009 (Figure 2). Please note that Pinery Lakes was removed from the survey in 2008 due to low numbers of waterfowl and lack of water. Huron Bay was added as a site in 2006 and is visited by large flocks of migrating waterfowl compared to numbers detected at other survey sites such as Pinery Lakes and probably explains most of the increased detections beginning in 2006. Equipment upgrades to more consistent use of scopes and high-powered binoculars may also partly explain the overall increase in detection of species and numbers from 2000 to 2010 which make it easier to see and discern waterfowl species from a distance. If more efficient methods are found to survey Huron Bay more easily, the number of detections will probably increase again.

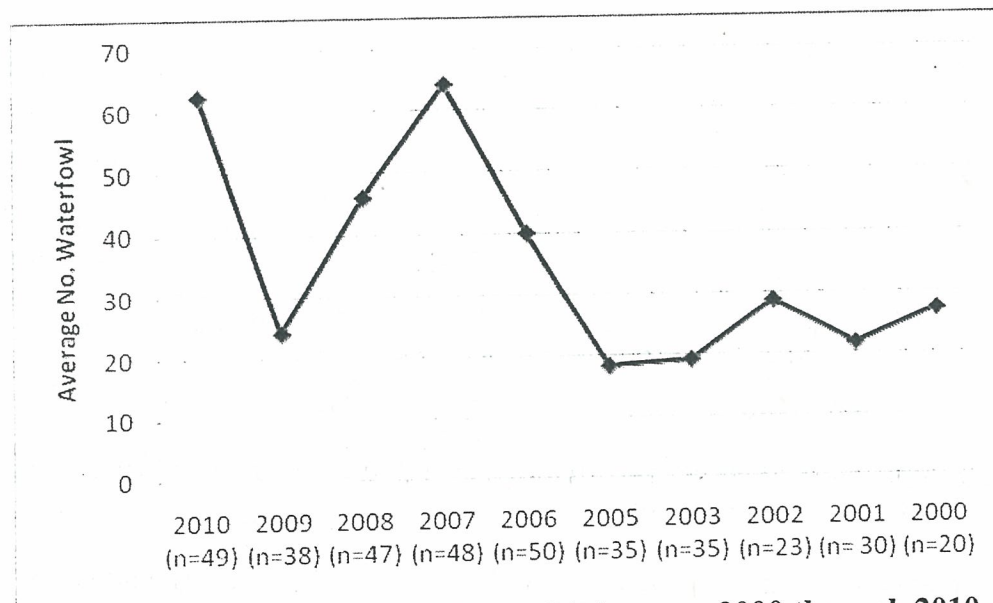


Figure 2. Average number of waterfowl detected per visit by year, 2000 through 2010. Data is unavailable for 2004. (n = total number of site visits)

Overall, there have been a grand total of 27 species of waterfowl identified between 2000 and 2010. The total number of species detected in 2010 was 16 species compared to 20 detected in 2009. Species diversity ranges from 9 to 21 total species being detected between 2000 and 2010 with the lowest detection of species in 2002 and the greatest number of species detected in 2007, respectively (Figure 4).

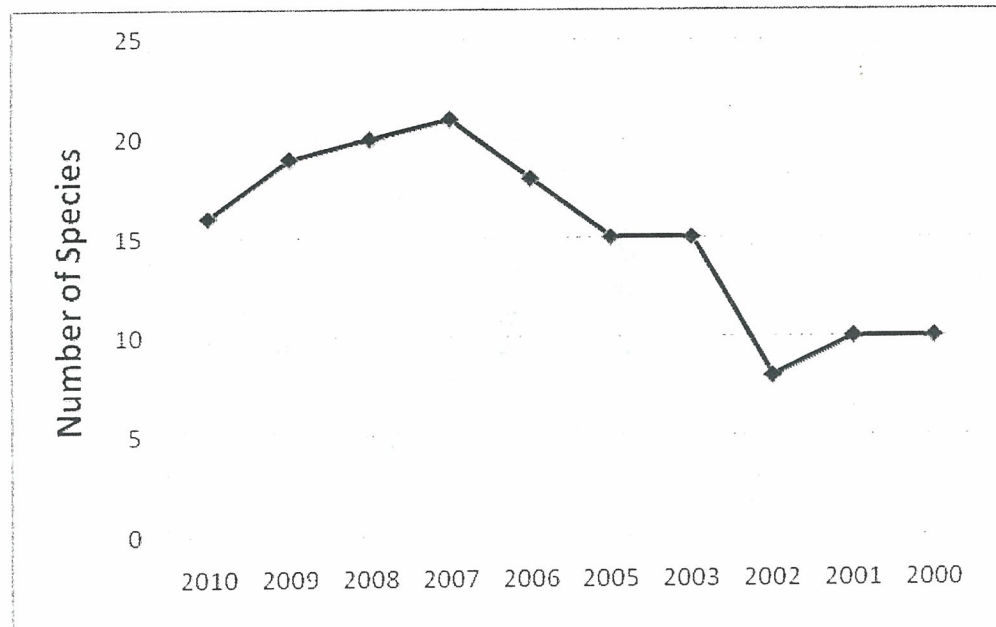


Figure 4. Number of species detected by year, 2000 through 2010. (Data is unavailable for 2004)

Diversity of waterfowl observed per site from greatest to least in 2010 was: Keweenaw Bay with 14 species, Huron Bay with 11 species, Sand Point with 7 species and Mud Lakes with 4 species detected. Overall, Keweenaw Bay and Huron Bay have the greatest numbers of species detected (Figure 5).

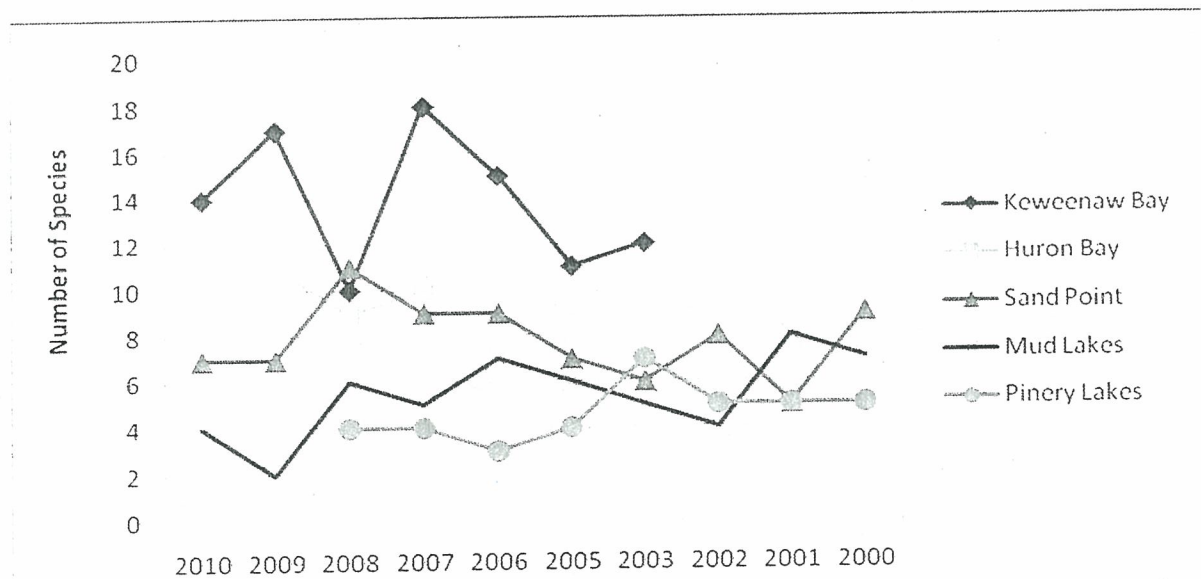


Figure 5. Comparisons of species diversity between years and study sites, 2000 through 2010 (data is unavailable for 2004).

Wild Rice Management and Restoration

Wild rice (manoomin) is the “food that grows on water”, whose presence fulfilled the prophecies foretold in the Anishinaabe’s migration from the east. It is used in our daily lives, ceremonies, and feasts (Our Manoomin, Our Life). It is also recognized as a preferred source of food for migrating waterfowl and has high ecological value for both wildlife and fish habitat. It can also help to maintain water quality by securing loose soil and tying up nutrients. The amount of wild rice in the western U.P. has declined from historic levels due mainly to water fluctuations for logging and hydro dams over the past century. In 1991, there wasn’t any wild rice present in our area, although historically it was thought to have been here and on lakes in areas named “Rice Lake”. Peter David, Great Lakes Indian Fish and Wildlife Commission (GLIFWC), assisted our Natural Resources Department in identifying suitable lakes, providing technical assistance, and a source for green seed. In 2003, The Keweenaw Bay Tribal Council affirmed the community’s interest in a wild rice program on the L’Anse Indian Reservation (KBIC Integrated Resource Management Plan). It is our hope is to have self-sustaining wild rice populations.

Our original focus was on three wetland systems: Sand Point Sloughs, Pinery Lakes, and Mud Lakes. In 1999, we expanded to include Robillard Impoundment. In 2004, we became cooperators with The Cedar Tree Institute in The Manoomin Project. In 2005, we began test plots in other areas and checked into possible partnerships outside of the reservation boundaries, in ceded territory (Table 1). In 2007, we partnered with US Forest Service, Lac Vieux Desert (LVD), and USDA- NRCS on a cooperative wild rice seeding project for several lakes in Ottawa National Forest. In 1999, Huron Bay is a larger area which we began seeding. Since 1991, we have planted thousands of pounds of wild rice at selected sites (Table 2). Future plans include test seeding Parent Lake, an additional area in Baraga County which was checked as a potential cooperative project with MDNR. Zeba Creek, a tribally accessible site mentioned in GLIFWC’s 1994 Wild Rice Enhancement Survey is also a waterbody having wild rice potential.

wild rice crops were also taken. In instances where the coverage is greater than sparse an estimate of coverage was made with a gps unit, pictures, and arc view mapping.

Areas with wild rice present

Huron Bay

Huron Bay has a possible 35 acres of wetlands with favorable conditions for wild rice, the largest wetland site bordering the reservation. There are numerous waterfowl using this area and tribal land borders this wetland. In 2009, wild rice was planted over 10 acres for the first time. This year, wild rice came up in all the areas planted and it was decided to concentrate our 2010 planting on this site. This is a promising future area we will continue to plant.

Sand Point Sloughs

Sand Point Sloughs had approximately 5 acres of wild rice in the main area, an increase from the last three years. The main slough still had large muskrat houses which are partially composed of the plants. There is pickerelweed near the north end of the sloughs, which may pose a future problem. Past estimates of coverage, water depths, and plant sizes (table 3). Crop coverages were estimated by eye and pictures. Sample plots were taken this year, algae and elodea were present within the measured plots. No wild rice was seen at Hidden Lake or the Lighthouse Pond. Water levels have gone up from the last two years but are still low and channel to lake is closed with sand (still current fluctuations); there is a sizeable sandbar in main sloughs which may have flowering rush. Phragmites were found in parts of the slough but identified as a native species. Eurasian watermilfoil was identified at a nearby pond.

Table 3. Averages for Sand Pt. Sloughs Wild Rice Crop (main 8 acre lake)

Site	1999	2000	2001	2002	2003	2004	2007	2010
Sample size	5	3	4	3	5	2	4	5
Density (stalks/.5 sq. m)	97	98	100+	95	114	81.5	52	
Tillers	2	2	2	2	2	1.5	1	
Coverage (acres)	4	4	4.8	2.1	3.2	2	3	5
Water depth (inches)	27	12	20	21	17	24.5	6.4	12
Plant size (inches)	45	61	69	56	61.5	57	61	66

Menge and Kelsey Creek Wetlands

Crop densities continue to grow and wild rice is a major component of aquatic plants at these two sites but crops still cover slightly less than half the lake and are considered sparse. Averages were taken for both areas. Menge Creek wetlands had a high number of waterfowl using area and many of the plants were cropped. This is a highly visible area on the reservation. Kelsey Creek wetlands have a lot of beaver activity and damming of creek. The pond near the Brunk Camp was a beaver made impoundment, the east end was dammed up with small trees and branches and west end had a large beaver home. Access to all the water sites is difficult (camp road, logging road, cross-country ski trail), and a four-wheeler/snowmobile would be advisable for large plantings. Canoe access is very difficult. The remote access and mature woods surrounding the area offers future wildlife refuge possibilities. Most likely there are large numbers of waterfowl here also but this site isn't included on the regular waterfowl monitoring due to its difficult access and remoteness.

Menge

Kelsey

showed potential for future self-sustaining wild rice beds. The small amount of established wild rice this year was possibly due to the cold, late spring, which likely means most of the seed remained dormant and did not germinate. In 2008 and 2009, members of KBIC and Forest Service staff hand-broadcasted seed in all three lakes, in hopes of increasing the amount of wild rice. Rice was annually monitored for presence and additional rice seed will be hand-broadcast again in areas that could benefit from another year of seeding in 2011. Once established, the wild rice beds should become self-sustaining, assuming conditions remain favorable. These new wild rice beds, though relatively small in size, will help restore this important aquatic plant to the lakes and wetlands of the Ottawa National Forest and the ceded territory (Randall Wollenhaup, Ottawa National Forest).

The Manoomin Project 2004-2007

Cedar Tree Institute put forth a collaborative effort supported by KBIC for a three-year historic planting of wild rice in eight lakes and wetlands in Marquette and Alger Counties. During this time at risk youth were involved in over 1000 hours of community service to carry out this initiative. Several outcomes of this initiative were; youth learned the history and plant life of wild rice, were introduced to Northern Michigan Ojibway cultures, and were part of the planting of wild rice. Staff and volunteers from Project Weave, the Marquette Juvenile Court, The Central Lake Superior Watershed Partnership, and the Cedar Tree Institute planted 1900 pounds of wild rice seed on the following waterbodies: Harlow Lake, the Peshekee River, Lake Levasseur, Laughing Whitefish River, Harkins Lake, Dead River, Keweenaw Bay, and Sand Lake. Peter David, GLIFWC, checked several of the seven lakes seeded in The Manoomin Project and let KBIC know that wild rice was present in 2007, these lakes weren't checked in 2008. In 2009, Peter David checked some of the lakes but conditions were unknown in 2010.

Yellowdog Plains beaver ponds

Yellowdog Plains beaver ponds were checked by private individuals and wild rice was present in 2007-10.

Areas without wild rice present

Clear Lake

A small amount of rice was planted in 2008 at this site and there weren't any plants seen the last two years. It was noted that shoreline was unsuitable for future plantings. There have been several other small wetland areas planted in the past by Natural Resources Committee members; US-41 pond, Bishop L. wetland, Indian Rd. wetlands are a few which have had success. Lightfoot Bay is a larger area which was planted one year only and not rechecked. In 2011, these areas will be checked for wild rice presence and suitability for continued efforts.

Pequaming wetland

Pequaming wetland was planted with a small amount of rice in 2009 but there wasn't any present in 2010. This wetland is very difficult to access and most likely will be abandoned for future plantings.

Mud Lakes

There were large numbers of water lilies, water shield, and pondweed observed in these lakes. Wild rice has grown here in past years and there were a few plants two years ago, with work this is a possible location for the future. Rakes would need to be used to lower plant competition. The current access road on the east end of the upper lakes is actually lower than the lake water level. In 2008, attempts were made to clear the culvert to allow drainage but the area filled back in. In order to repair the road, USDA-NRCS recommends getting adequate road fill and build the road up with a good gravel surface. Annual maintenance work is needed on the stop-log control structure; screen placement and clearing the debris from the culvert going to Lake Superior. In 2008, we cleared the debris from the culvert but were unable to remove the welded screen to check for blockages. The control structure had 5 slats in place for a total of 33 inches; 4-7", 1-5". The slats were taken out to help drop the water level in the lakes for spring.

Date: _____

Site(s): _____

Time: _____

Observer(s): _____

Wind Code:

Indicators

0	<1mph	smoke rises vertically
1	1-3mph	wind direction shown by smoke drift
2	4-7mph	wind felt on face/ leaves rustle
3	8-12mph	leaves and small twigs in constant motion
4	13+mph	raises dust, leaves, loose paper, small twigs

Wind Direction (if possible)_____

Air Temperature _____

Other Notes: _____

[illegible]

**Keweenaw Bay Indian Community
Department of Natural Resources**

**Waterfowl Index Report
2008**

By Evelyn Ravindran and Pamela J. Nankervis

Introduction

The Keweenaw Bay Natural Resources Department (KBNRD) has conducted a waterfowl index during the fall from 1994-2007. Sites were chosen on the L'Anse Indian Reservation (Baraga County, MI) and on KBIC owned lands to observe waterfowl utilization: Sand Point Sloughs, Pinery Lakes, Mud Lakes, Head of Keweenaw Bay, and most recently Huron Bay (Fig.1). Four sites have been improved (wild rice planting, water control structures and/or nesting structures) for waterfowl utilization. This waterfowl index was modeled from a program described by U.S. Fish and Wildlife Service (USFWS) personnel from Ashland, WI. Since 1991, KBNRD has received annual funding from a Bureau of Indian Affairs sponsored cooperative program entitled "Circle of Flight". Circle of Flight has supported this fall survey and various other activities which benefit area waterfowl and the wetlands they inhabit.

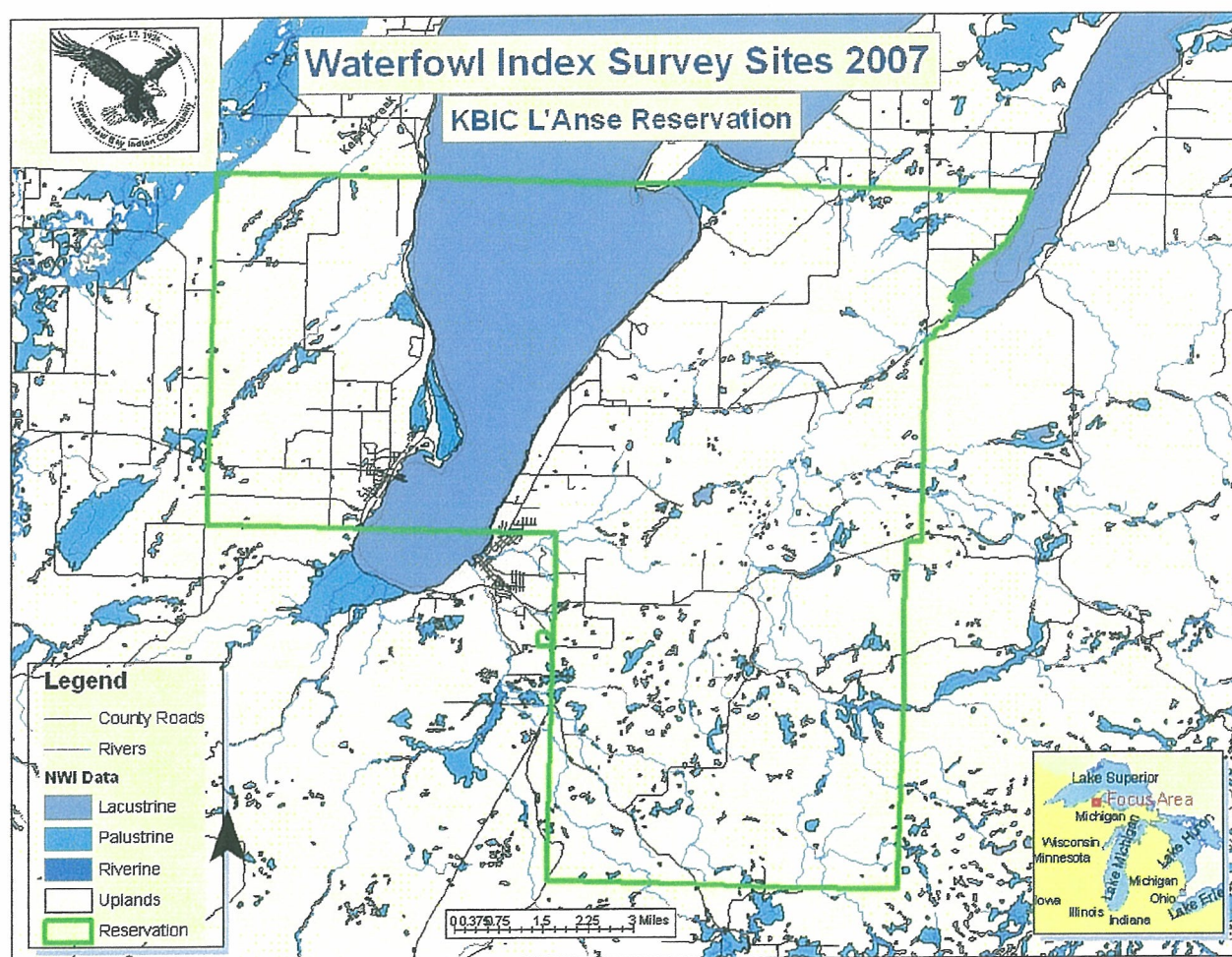


Figure 1. 2007 Waterfowl Survey Sites located on the Keweenaw Bay Indian Community, L'Anse Reservation.

Sand Point Sloughs is a backwater slough connected to Lake Superior which experiences regular seiches (Fig. 2). This slough is relatively shallow (water less than 6 feet) with minor shoreline development. On the eastern end of the Sand Point Sloughs, there is tribal development of the public beach area. Electric lines and permanent outlet boxes were installed, a gravel access road was widened, and gravel was leveled for a parking area. This construction was completed during the summer of 1996. Since this time, a stamp sand remediation project has been ongoing at the public beach area. In 2006, Electric lines were removed, stamp sands were covered with fresh top soil, the smallest northern pond (NP) was filled in, and a gravel walking trail was created. Plans are currently being made to revegetate the area including the shore of the small southern pond (SP).

On the south side of the Slough, a lighthouse was purchased by the Keweenaw Bay Indian Community in 1994 and is currently used as an office. A small lake (Hidden Lake), attached by a short channel, near the mouth of the Sand Point Sloughs is also considered to be part of this site. Hidden lake also has shallow (<6 feet) water. In 1997, a floating dock was added and anchored as a bridge, to improve access to this back sloughs area. In 1998, a 180 foot long marsh walk was added to allow access to Hidden Lake and KBNRD released two juvenile trumpeter swans. In 1999, wild rice was harvested by tribal members for the first time. In 2000, the trail going from the main road near the northern end of the main sloughs area was cleared and cleaned up. Permanent water quality and depth gauging stations were added to the main slough area and Hidden Lake. Also, permanent sites were made for measuring wild rice crop densities.



Figure 2. Map of Sand Point Sloughs including locations of waterfowl observation points in blue and the smallest northern pond (NP) that was filled and the small southern pond (SP) that is planned for native plant revegetation.

Mud Lakes is a series of small lakes (<5 acres) which are shallow in most areas (water <6 feet), but have small deep water pockets (water 6 to 11 feet). In 1998, many projects were completed at this site: 1) a contractor installed a culvert and added some fill to a ditch in the access road; 2) an entrance gate was also placed on the access road; 3) a 12 foot high observation tower was built on a high stretch between the eastern and western lakes; and 4) several beaver dams were removed at the

outlet of Mud Lakes. In 1999, the following projects were completed: 1) an access road was made to the outlet; 2) a water control structure was installed at the outlet; 3) several beaver were removed; and 4) water levels were lowered in all lakes. In 2000, water levels were manipulated several times by removing and adding slats at the water control structure. The channel outflow going under the dirt road near the upper eastern lake was dredged and gravel added to keep it from plugging up. Overall water level appeared to be down from shoreline vegetation. A nearby landowner was contacted and asked to remove some derelict machinery he had on tribal property. A trail was cleared from the Old U.S. 41 to the channel connecting upper and lower lakes. Floating docks on upper western lake were maintained. Permanent water quality and depth gauging stations were added to an upper and lower lake site. Also, permanent sites were made for measuring wild rice crop densities.

Pinery Lakes consists of two inland lakes with shallow (less than 6 feet) water. In 1997 several projects were completed at this site: 1) a 24 foot long floating dock was added to the upper Pinery Lake to improve access; 2) a 4 foot diameter culvert and stabilization rock were added between the upper and lower Pinery Lakes to provide a crossing between the lakes and allow water flow between the lakes; and 3) two smaller culverts were installed at the outlet of the lower Pinery Lake to help maintain water levels suitable for wild rice. Due to low water levels and no obvious inlet or outlet for water management, the floating dock was removed in 2005. No wild rice is currently present..

Head of the Keweenaw Bay is located between L'Anse and Baraga where KBIC owns a 25 acre parcel of wetland. Due to the important ecological functions of the entire wetland and open water located here, surveillance of waterfowl has been conducted and wild rice plantings were done annually from 2004 to 2006. Interstate highway 41 travels around the bay with a several gravel parking areas established along the edges of the wetland. Several private homes are also built along the head of the bay.

Huron Bay is located in the northeast corner of the KBIC L'Anse Indian Reservation. KBIC currently owns a 112 acre parcel of wetland with purchase of more property being negotiated. There is a network of sloughs, shallow water tributaries and deep open water (≥ 6 ft) that is visited annually by hundreds of migrating waterfowl. Monitoring was initiated in 2007 to see if Huron Bay should be added as long-term surveillance point.

Methods

In Michigan's western Upper Peninsula, the usual time to begin waterfowl surveys is late September. The waterfowl index began in late September 2008 and concluded at the end of November when lakes were frozen at each site. The survey was conducted weekly at or near dawn. Weather conditions in the specified areas were observed and noted.

Three Bausch and Lomb 15x-60x Zoom Telescopes and Tasco 7 x 42mm binoculars were used to observe waterfowl. "Ducks at a Distance", federal waterfowl identification guide and an Audubon handbook titled "Eastern Birds" were used in species identification. All information was recorded on a waterfowl index data sheet (Appendix). On most days, two observers conducted the survey, and conferred with each other before information was recorded.

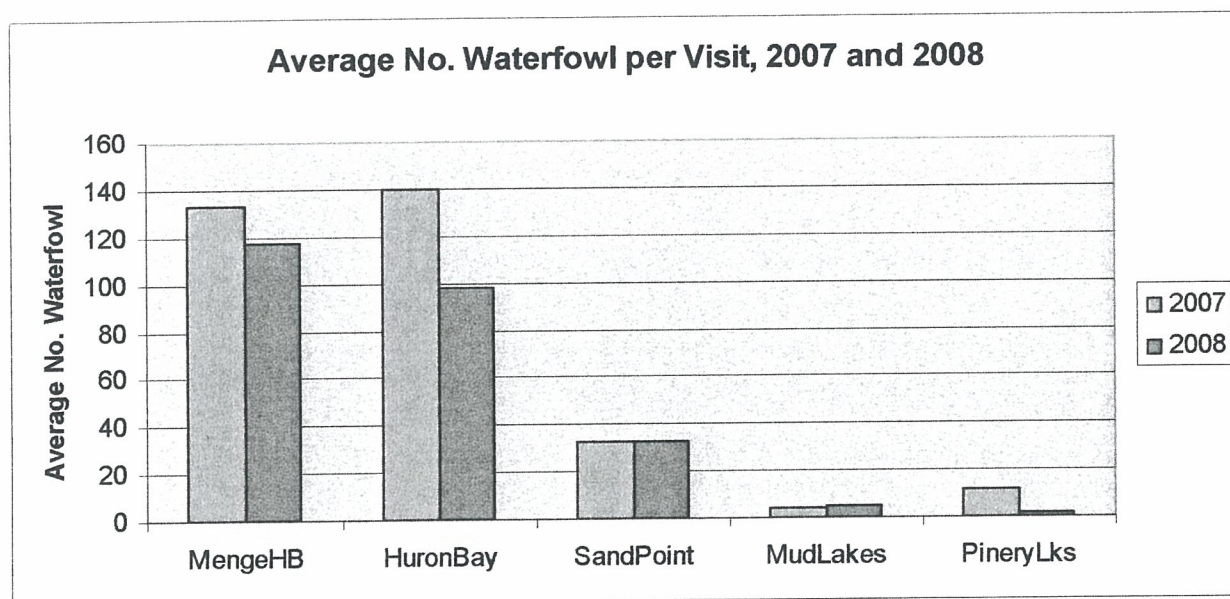
Viewing took place from specified observation points. The number of species and individuals seen

on the water and flying overhead were recorded for each visit. When two observers went to different observation points at the same site, they prearranged and conferred at the end of the site survey before recording information to keep from overlapping observations. Prearrangement included: selecting observation points so all areas were covered without overlapping, noting time and directions of flyovers, and dividing equipment and reference material. Sightings of endangered bird species, culturally significant species, and other points of interest were also recorded.

Results

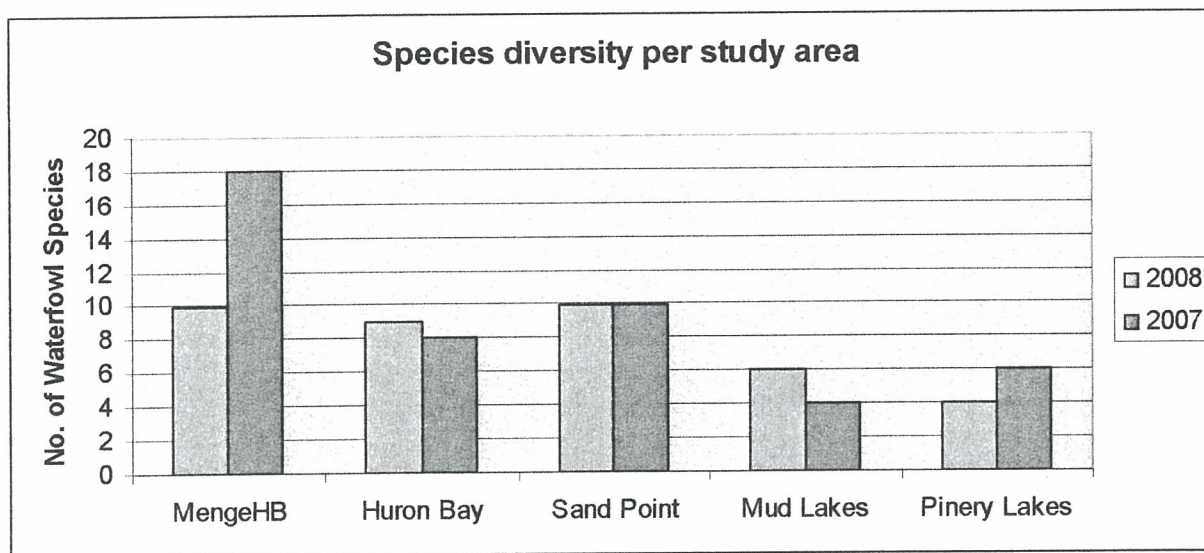
In 2008, waterfowl surveys took place weekly for 11 consecutive weeks at the Head of Keweenaw Bay; 10 consecutive weeks at Pinery Lakes, Mud Lakes, and Sand Point and 6 weeks at Huron Bay on a bi-weekly schedule. The total number of waterfowl observed was 2156 compared to 3081 in 2007. The greatest average number per visit was seen at the Head of Keweenaw Bay in 2008, versus the greatest average number seen per visit in 2007 at Huron Bay (Figure 2).

Figure 2.



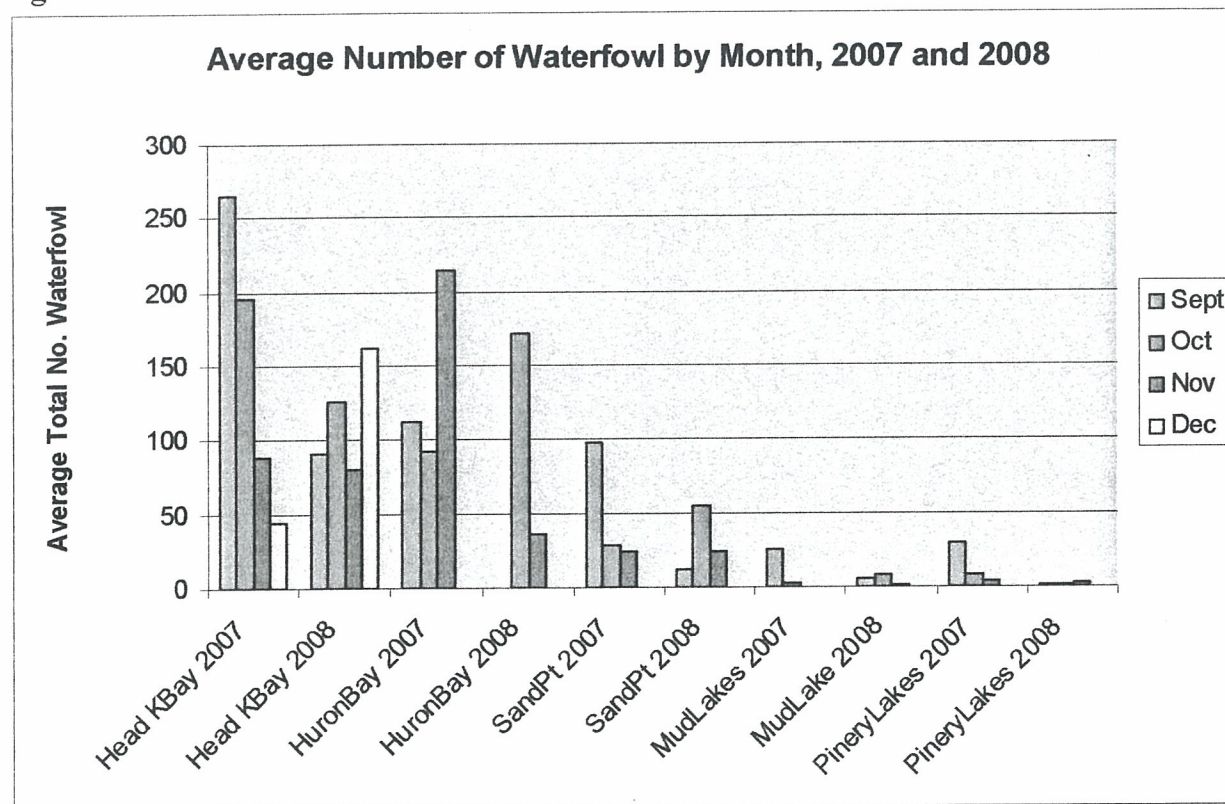
The greatest species diversity observed was at the Head of Keweenaw Bay and Sand Point Sloughs with 10 species of waterfowl observed in 2008. The lowest species diversity was observed at Pinery Lakes with only 4 species observed. This is comparable to 2007, although there were three fewer species seen overall in 2008 ($n = 19$) than in 2007 ($n = 22$) (Figure 3).

Figure 3.



Monthly total waterfowl observed show a similar trend with greatest numbers of waterfowl being observed at the Head of Keweenaw Bay and Huron Bay (Figure 4).

Figure 4.



Ten species of waterfowl totaling 1170 were observed at the Head of Keweenaw. These species,

listed in order from greatest to least abundance (n) were: American Coot (420), Canada Goose (227), Mallard (312), Black Duck (149), Greater/Lesser Scaup (25), Blue Wing Teal (15), Common Merganser (11), Goldeneye (6), Ringneck (3), and Redhead (2).

At Huron Bay, eight different species were identified for a total of 587 waterfowl. These species, listed in order of greatest to least abundance (n) were: Greater/Lesser Scaup (282), Goldeneye (100), Bufflehead (64), Mallard (58), Redhead (39), Common Merganser (26), Greenwing Teal (10), and Trumpeter Swan (6).

At Sand Point, nine species of waterfowl were observed, listed in order of greatest to least abundance (n) : Canada Goose (268), Wood Duck (34), Mallard (11), American Coot (6), Common Loon (4), Goldeneye (3), American Wigeon (3), Ring Neck (2), and Red Breasted Merganser (1).

At Mud Lakes, five species of waterfowl were observed, listed in greatest to least abundance: Canada Geese (17), Mallard (15), Wood Duck (10), American Coot (4), Double Crested Cormorant (1), and a Bufflehead (1). Canada Geese were observed as flyover and have not been observed to use Mud Lakes in previous years either.

At Pinery Lakes, four species of waterfowl were observed, listed from greatest to least abundance: Hooded Merganser (10), Mallard (4), Bufflehead (2) and Wood Duck(2). The water levels have diminished over the years, but are extremely low following drought conditions. There were fewer wood ducks observed here this year, only 2 in 2008 compared to 11 in 2007.

Species that showed an increase in abundance in 2008 over last year's 2007 totals are Goldeneye, Common Merganser, and Wood Duck. Species that showed a decrease in abundance this year were most notably the Blue Winged Teal, Redhead and Hooded Mergansers (Figure 5).

Wild Rice Management and Restoration

Wild rice (manoomin) is the "food that grows on water", whose presence fulfilled the prophecies foretold in the Anishinaabe's migration from the east. It is used in our daily lives, ceremonies, and feasts (Our Manoomin, Our Life). It is also recognized as a preferred source of food for migrating waterfowl and has high ecological value for both wildlife and fish habitat. It can also help to maintain water quality by securing loose soil and tying up nutrients. The amount of wild rice in the western U.P. has declined from historic levels due mainly to water fluctuations for logging and hydro dams over the past century. In 1991, there wasn't any wild rice present in our area, although historically it was thought to have been here and on lakes in areas named "Rice Lake". Peter David, Great Lakes Indian Fish and Wildlife Commission (GLIFWC), assisted our Natural Resources Department in identifying suitable lakes, providing technical assistance, and a source for green seed. In 2003, The Keweenaw Bay Tribal Council affirmed the community's interest in a wild rice program on the L'Anse Indian Reservation (KBIC Integrated Resource Management Plan). It is our hope is to have self-sustaining wild rice populations.

Our original focus was on three wetland systems: Sand Point Sloughs, Pinery Lakes, and Mud Lakes. In 1999, we expanded to include Robillard Impoundment. In 2004, we became cooperators with The Cedar Tree Institute in The Manoomin Project. In 2005, we began test plots in other areas and checked into possible partnerships outside of the reservation boundaries, in ceded territory

(Table 1). In 2007, we partnered with US Forest Service, Lac Vieux Desert (LVD), and USDA-NRCS on a cooperative wild rice seeding project for several lakes in Ottawa National Forest. Since 1991, we have planted thousands of pounds of wild rice at selected sites (Table 2). Additional areas in Baraga County will be checked into for possible future seeding including Zeba Creek wetlands and Parent Lake. These are two tribally accessible sites and Parent Lake is mentioned in GLIFWC's 1994 Wild Rice Enhancement Survey as a lake having wild rice potential and possibilities as a cooperative project with MDNR.

Table 1. Acreage of lakes at each site on the L'Anse Indian Reservation.

Site	Acres of lakes
Sand Point Sloughs	21
Mud Lakes	11
Pinery Lakes	28
Robillard Impoundment	3
Kelsey Creek wetlands	10
Menge Creek wetlands	10
Gomanche Creek wetlands	0.6
Pakkala Creek wetlands	0.3
Indian Road pond	2
Laughs Lake	15
US 41 wetland (1 acre)	1

Table 2. Pounds of wild rice planted at sites in 1991 thru 2008.

Site	1991-1997	98	99	00	01	02	03	04	05	06	07	08
Sand Point Sloughs	1772	0	0	0	120	0			273	430	0	0
Mud Lakes	560	346	243	433	240	0			0	0	0	0
Pinery Lakes	2799	281	167	0	300	0			0	0	0	0
Robillard Impoundment	0	0	0	0	400	360	0	0	0	0	0	0
Menge Creek wetlands	0	0	0	0	0	0	0	40	311	372	137	346
Pakkala Creek wetlands	0	0	0	0	0	0	0	20	0	0	0	0
Indian Road pond	0	0	0	0	0	0	0	20	0	0	0	0
Kelsey Creek wetlands	0	0	0	0	0	0	0	0	94	233	149	201
Gomanche Creek wetlands	0	0	0	0	0	0	0	0	30	108	59	53
Manoomin Project	0	0	0	0	0	0	0	900	400	600	0	0
Laughs Lake	0	0	0	0	0	0	0	0	0	170	101	102
Yellowdog Plains	0	0	0	0	0	0	0	0	0	207	0	0
US 41 wetland (1 acre)	0	0	0	0	0	0	0	0	0	38	0	0

Ottawa Project	0	0	0	0	0	0	0	0	0	0	350	509
Clear Lake	0	0	0	0	0	0	0	0	0	0	0	13

Monitoring

Wild rice seed can lie dormant for up to 5 years. Wetlands that have had wild rice present or action taken upon it within the last 5 years are surveyed annually for the presence of wild rice (survey form attached). Pictures of wild rice crops were also taken. In instances where the coverage is greater than sparse an estimate of coverage was made with a gps unit, pictures, and arc view mapping.

Areas with wild rice present

Sand Point Sloughs

Sand Point Sloughs had approximately 3 acres of wild rice in the main area, similar to last year. There is a continuing increase in the crop next to the main slough. Past estimates of coverage, water depths, and plant sizes (table 3). Crop coverages were estimated by eye and pictures. Sample plots weren't taken this year. In past years, algae and elodea were present within the measured plots. No wild rice was seen at Hidden Lake or the Lighthouse Pond. Water levels are still very low and channel to lake is periodically closed; there is a sizeable sandbar in main sloughs. Phragmites were found in parts of the slough but identified as a native species.

Table 3. Averages for Sand Pt. Sloughs Wild Rice Crop (main 8 acre lake)

Site	1999	2000	2001	2002	2003	2004	2007
Sample size	5	3	4	3	5	2	4
Density (stalks/.5 sq. m)	97	98	100+	95	114	81.5	52
Tillers	2	2	2	2	2	1.5	1
Coverage (acres)	4	4	4.8	2.1	3.2	2	3
Water depth (inches)	27	12	20	21	17	24.5	6.4
Plant size (inches)	45	61	69	56	61.5	57	61

Menge and Kelsey Creek Wetlands

Crop densities continue to grow and wild rice is a major component of aquatic plants at these two sites but crops still cover less than half the lake and are considered sparse. Menge Creek wetlands had a high number of waterfowl using area and many of the plants were cropped. This is a highly visible area on the reservation. Kelsey Creek wetlands have a lot of beaver activity and damming of creek. The pond near the Brunk Camp was a beaver made impoundment, the east end was dammed up with small trees and branches and west end had a large beaver home. Access to all the water sites is difficult (camp road, logging road, cross-country ski trail), and a four-wheeler/snowmobile would be advisable for large plantings. Canoe access is very difficult. The remote access and mature woods surrounding the area offers future wildlife refuge possibilities.

Laughs Lake

While much of the lake is deeper than 6 feet, the area near the outlet is suitable and test seeding was done here 2006-2008. Wild rice grew in areas planted and waterfowl were observed using the lake. This lake was purchased by the tribe as

Gomanche and Pakkala Creek wetlands and Indian Road pond

Wild rice is present at these three sites, in the case of the Indian/Herman Road pond over half of the lake is covered but these are sites are an acre or smaller and crop density wasn't measured. Waterfowl were observed at the remote Gomanche wetlands and Indian Road pond.

Mud Lakes

There were some wild rice plants observed in the upper eastern lake but there is a lot of plant competition. Wild rice has grown here in past years and with work this is a possible location for the future. Rakes would need to be used to lower plant competition. The current access road on the east end of the upper lakes is actually lower than the lake water level. Attempts were made to clear the culvert to allow drainage but the area filled back in. In order to repair the road, USDA-NRCS recommends getting adequate road fill and build the road up with a good gravel surface. Annual maintenance work is needed on the stop-log control structure; screen placement and clearing the debris from the culvert going to Lake Superior. In 2008, we cleared the debris from the culvert but were unable to remove the welded screen to check for blockages. The control structure had 5 slats in place for a total of 33 inches; 4-7", 1-5". The slats were taken out to help drop the water level in the lakes for spring.

Off reservation cooperative project sites

Ottawa National Forest

The Ottawa National Forest has an objective in its forest plan to "maintain and/or expand the quantity and ecological health of wild rice beds." With this in mind, the Ottawa partnered with the KBIC, GLFWC, LVD, and USDA-NRCS in 2007 to establish wild rice (*Zizania aquatica*) on several small lakes within the Ottawa. In September of 2007, members of KBIC, the Lac Vieux Desert Band of Lake Superior Chippewa (LVD), and Forest Service staff, seeded wild rice in Lake Sainte Kathryn, Lake Thirteen, and Kunze Lake. Seeding of rice in these lakes was originally planned for three consecutive years over 10 acres, in order to provide the best chance for establishing self-sustaining rice beds. These lakes were monitored in 2008 to determine the results from the first year of seeding. All three lakes had small amounts of wild rice within the seeded areas, which showed potential for future self-sustaining wild rice beds. The small amount of established wild rice this year was possibly due to the cold, late spring, which likely means most of the seed remained dormant and did not germinate. On September 30, 2008 members of KBIC and Forest Service staff hand-broadcasted seed in all three lakes, in hopes of increasing the amount of wild rice. The rice will be monitored again in 2009, and additional rice seed will be hand-broadcast again in areas that could benefit from another year of seeding. Once established, the wild rice beds should become self-sustaining, assuming conditions remain favorable. These new wild rice beds, though relatively small in size, will help restore this important aquatic plant to the lakes and wetlands of the Ottawa National Forest and the ceded territory (Randall Wollenhaup, Ottawa National Forest).

The Manoomin Project 2004-2007

Cedar Tree Institute put forth a collaborative effort supported by KBIC for a three-year historic planting of wild rice in eight lakes and wetlands in Marquette and Alger Counties. During this time at risk youth were involved in over 1000 hours of community service to carry out this initiative.

Several outcomes of this initiative were; youth learned the history and plant life of wild rice, were introduced to Northern Michigan Ojibway cultures, and were part of the planting of wild rice. Staff and volunteers from Project Weave, the Marquette Juvenile Court, The Central Lake Superior Watershed Partnership, and the Cedar Tree Institute planted 1900 pounds of wild rice seed on the following waterbodies: Harlow Lake, the Peshekee River, Lake Levasseur, Laughing Whitefish River, Harkins Lake, Dead River, Keweenaw Bay, and Sand Lake. Peter David, GLIFWC, checked several of the seven lakes seeded in The Manoomin Project and let KBIC know that wild rice was present in 2007, these lakes weren't checked in 2008.

Yellowdog Plains beaver ponds

Yellowdog Plains beaver ponds were checked by private individuals and wild rice was present in 2007 and 2008.

Areas without wild rice present

Pinery Lakes

There has been no rice observed since 2003 on these lakes. Water levels have dropped to a point where there is no longer a connecting channel between lakes or observable inlets or outlets. There has been 5 years without wild rice observed on these lakes and it is unnecessary to check in 2009.

US-41 pond

In 2006, we gave 38 pounds of wild rice to members of our Natural Resources Committee to test plant. There was no wild rice observed at this site from the shoreline for the last two years. This site will likely continue to be unproductive.

Robillard Impoundment

No wild rice has been observed here since 2003 and the impoundment has been reduced to a creek. Rebuilding of the Robillard Impoundment hasn't taken place. The U.S. Army Corp of Engineers had questions on Robillard Impoundment, which KBIC has answered. Michigan Department of Natural Resources surveyed Robillard Creek and they have reservations on permitting the rebuilding of this water control structure for wildlife habitat enhancement. Their position is that the impoundment would create a temperature rise in the stream that would negatively affect the brook trout in the stream. KBIC conducted an investigation of the fish community assemblage. Unless there are plans to rebuild, this site does not need to be checked in 2009.

Wild Rice Harvesting Efforts

Crop density was considered to be large enough and KBIC gave permission for harvesting. Tribal members harvested an estimated finished amount from Sand Pt. Sloughs from 1999-2002: 57lbs, 150lbs, >100lbs, and 60-70lbs. Robillard Impoundment had one harvest in 2002 with 80 lbs. of finished rice. KBIC currently owns equipment to harvest and process its own wild rice: 6 ricing canoes with equipment (6 duckbills, 12 paddles, foam, and tie-downs), a parching pan, and thrasher. In 2001, the Tribal Council named Sandy Dowd our 2nd wild rice chief and Alice Hadden was posthumously named our first wild rice chief in honor of their efforts. In 2004, this honor has been passed on to Eleanor Moede. Our department consults and keeps in touch with Eleanor Moede, KBIC wild rice chief, on activities involving wild rice.

Due to lack of areas to harvest within the reservation boundaries, outside areas were looked at. In

2003, 380 pounds of green seed were purchased with tribal funds and processed for community gatherings (134 lbs. of finished), 80 lbs. in 2004. In 2004, GLIFWC website was checked for rules and regulations and aerial maps. Dallas Gropengiser offered to show several ricing lakes he is familiar with in Villas County, Wisconsin but plans didn't work out for harvesting. The main reason mentioned by tribal members for not going to Wisconsin for harvesting was the travel time. In 2007, Bob Evans showed staff several established rice beds near Watersmeet where harvesting is possible: Ontonagon River, Crooked Lake, and Sucker Lake. In 2008, Lac Vieux Desert hosted a mini wild rice camp on Lac Vieux Desert and tentative plans were made for another camp in 2009.

Waterfowl hunting (Chapter 5) and wild rice gathering (Chapter 6) are managed and regulated by Tribal Code Title 10, Hunting, Fishing, Trapping, and Gathering ("Title 10"). Both activities require tribal members to have a tribal hunting, fishing, trapping, and gathering cards. Special permits aren't given for waterfowl but tribal members follow Federal Migratory Game Birds Regulations. Periodic surveys are given to hunters to summarize activity every few years. GLIFWC addresses these regulations in an annual meeting. Wild rice harvesting areas are designated by the Wild Rice Chief (Eleanor Mode) each year in August.

LaDuke, Winona and Brian Carlson. Our Manoomin, Our Life, The Anishinaabeg Struggle to Protect Wild Rice.

Keweenaw Bay Indian Community Integrated Resource Management Plan (Resolution No. KB-1152-2003)

Dlutkowski, Lisa. 1994 Wild Rice Surveys in the Upper Pensinsula. Great Lakes Indian Fish & Wildlife Commission.

Wollenhaup, Randall. Ottawa National Forest. 2008 summary of cooperative project.

Ecotone. The Cedar Tree Insitute. Jon Magnuson 2007.

2002 Keweenaw Bay Tribal Waterfowl Index and Wild Rice Update.

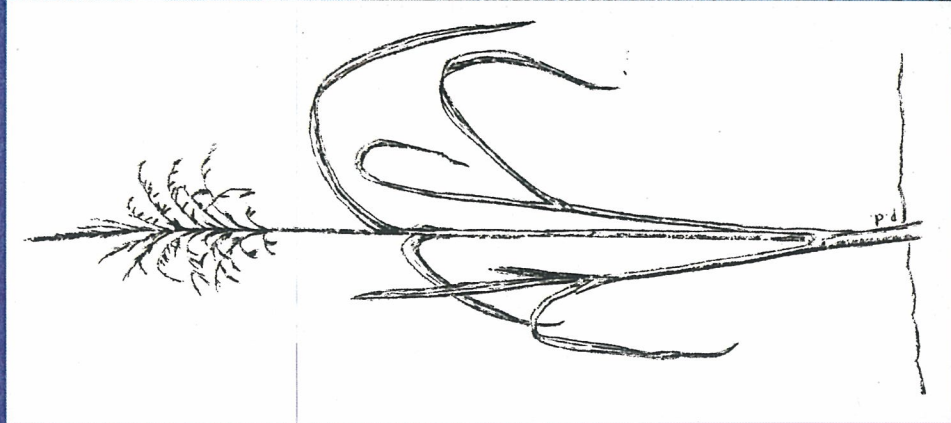
Keweenaw Bay Indian Community Tribal Code of Law: Title 10 Hunting, Fishing, Trapping and Gathering. Revised by the Keweenaw Bay Tribal Council at Special Council sessions conducted on March 31st, April 3rd, April 28th, and September 8th of the year 2003.

Manoomin

Wild Rice



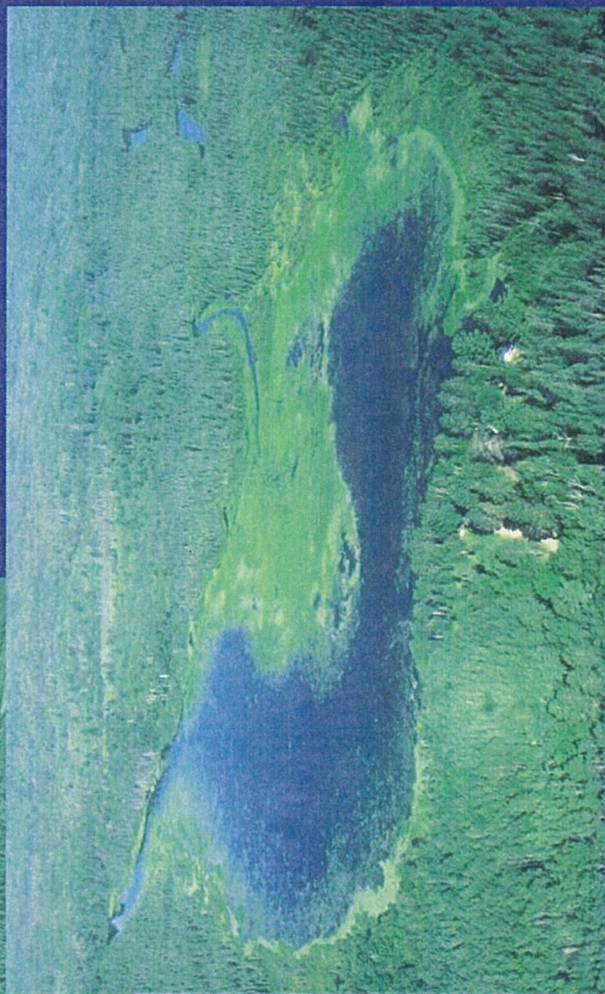
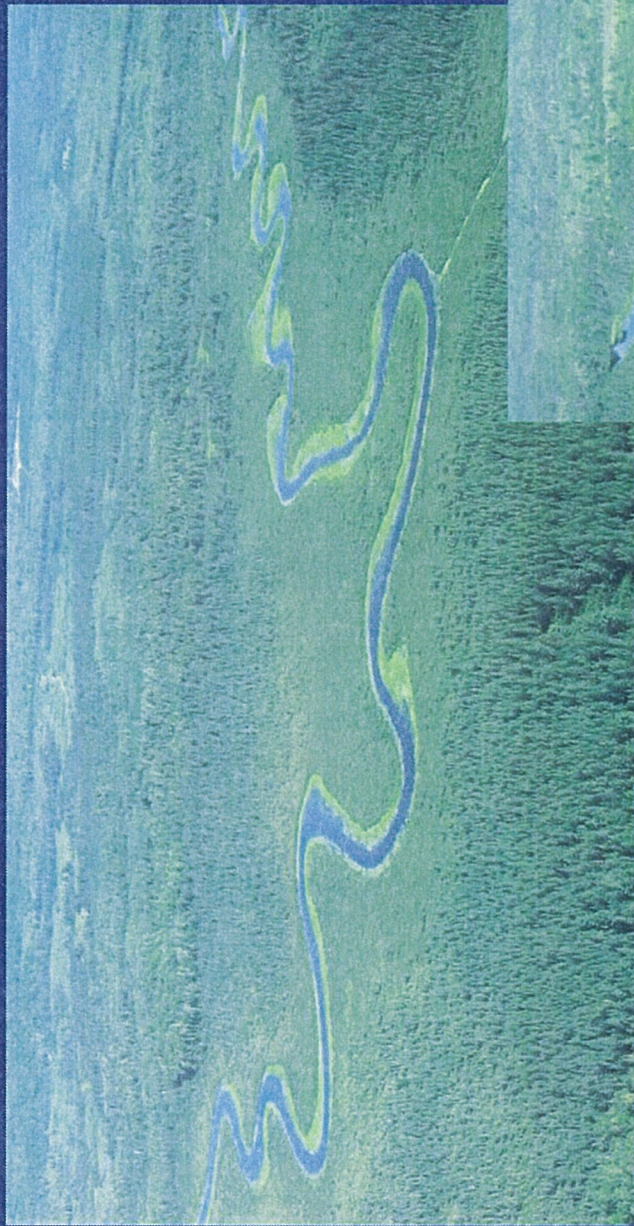
An Annual, Aquatic Grass



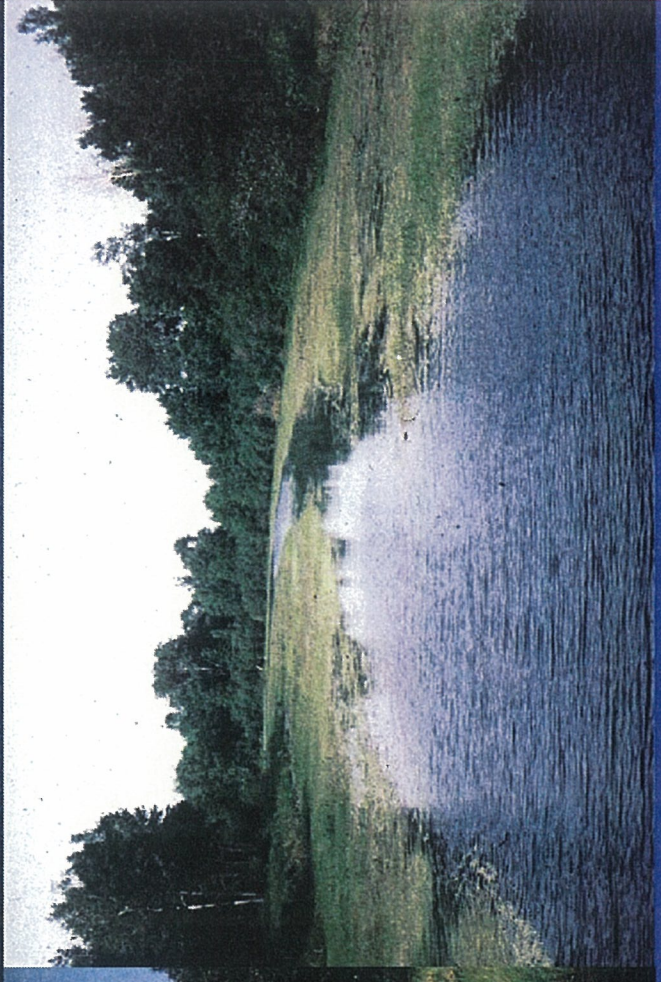
Habitat Preferences

- Water depths in 0.5-3 foot range
- Water not acidic or darkly stained
- Annual water level fluctuations not excessive but year-to-year conditions not too stable
- Organic, mucky substrate (preferred)
- And, rice requires gently....

Flowing Water



Seasonal Variation



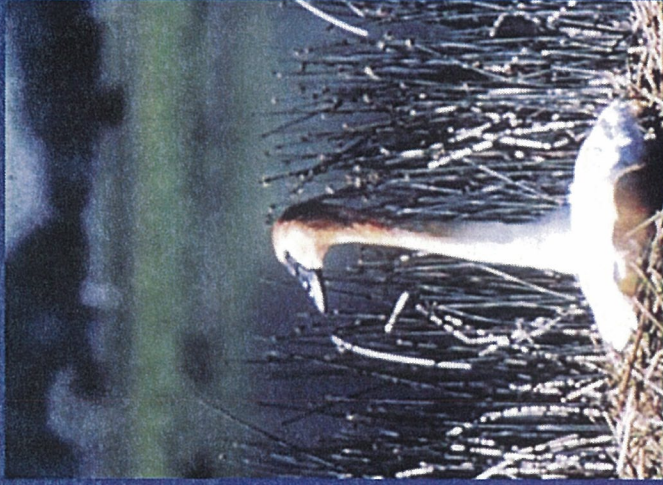
Annual Variation



A North American Resource



Tremendous Value Ecologically,



Nutritive Values

(per 100g)

	Wild Rice	White Rice
Protein (g)	10.5	6.9
Total Dietary Fiber (g)	5.7	1.6
Calcium (mg)	21.0	13.0
Magnesium (mg)	177.0	33.0
Phosphorus (mg)	433.0	116.0
Potassium (mg)	427.0	68.0
Zinc (mg)	6.0	1.1

and Culturally.



The Anishinabe (Ojibwe) Migration Story

MAJOR STOPPING PLACES

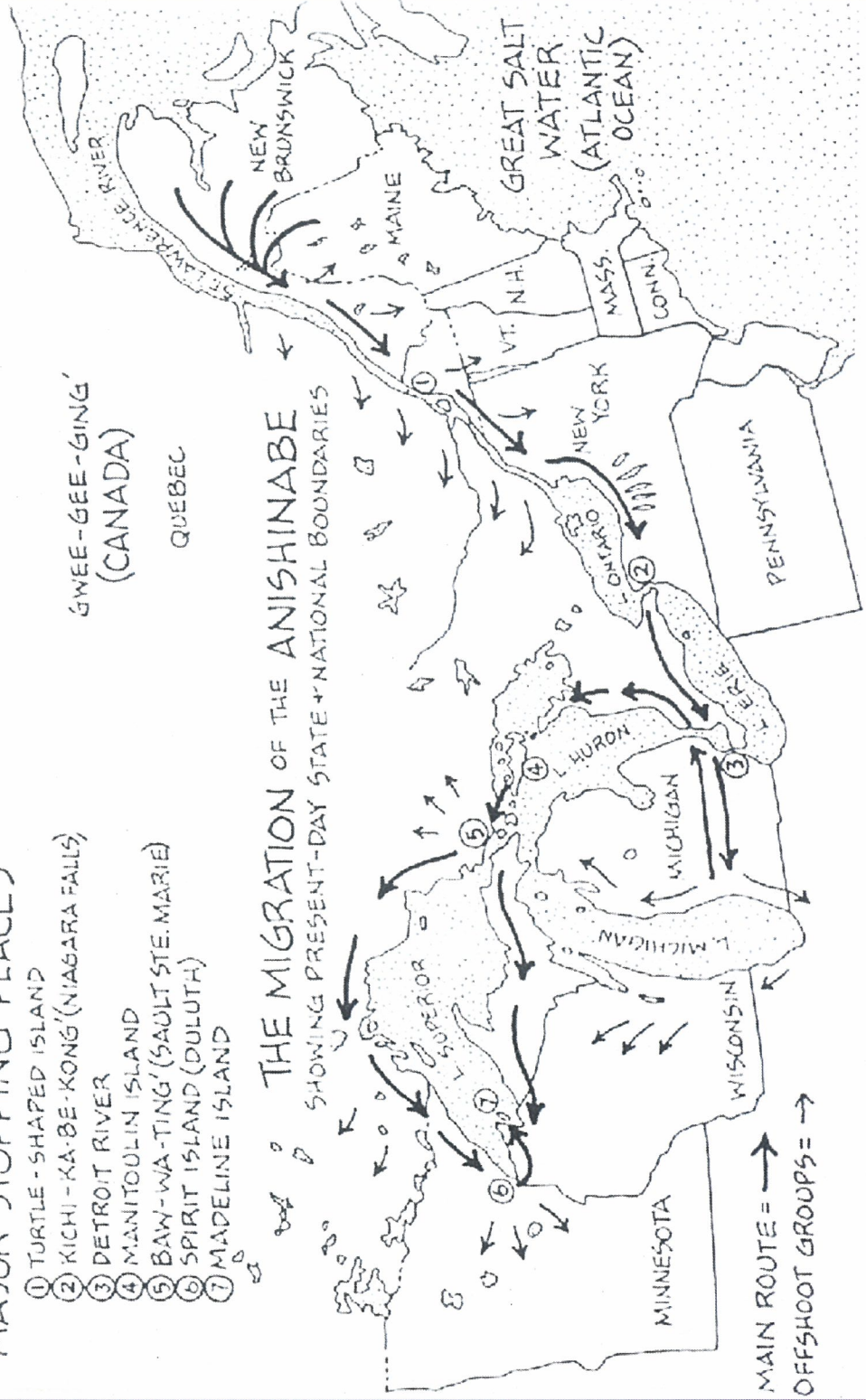
- ① TURTLE-SHAPED ISLAND
- ② KICHI-KA-BE-KONG' (NIAGARA FALLS)
- ③ DETROIT RIVER
- ④ MANITOULIN ISLAND
- ⑤ BAW-WA-TING' (SAULT STE. MARIE)
- ⑥ SPIRIT ISLAND (DULUTH)
- ⑦ MADELINE ISLAND

GWEE-GE-GE' (CANADA)

QUEBEC

THE MIGRATION OF THE ANISHINABE

SHOWING PRESENT-DAY STATE & NATIONAL BOUNDARIES



MAIN ROUTE = →
OFFSHOOT GROUPS = - - - →

A Long History of Harvest



*Photo courtesy of
Minnesota Historical Society*



*Photo courtesy of
Wisconsin Historical Society*

Loss of Wild Rice in Michigan's Upper Peninsula

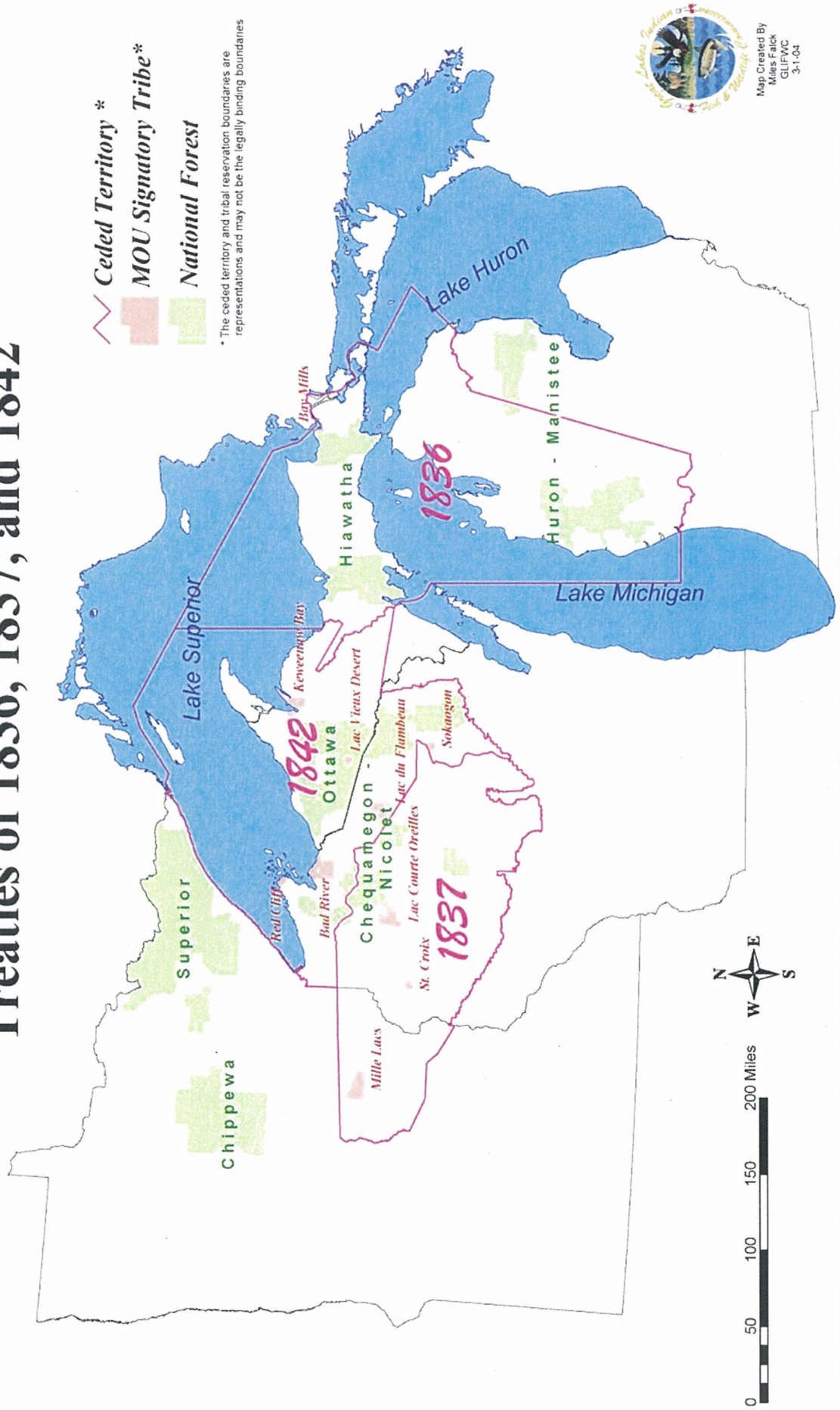


Photo of Prickett Dam, MI

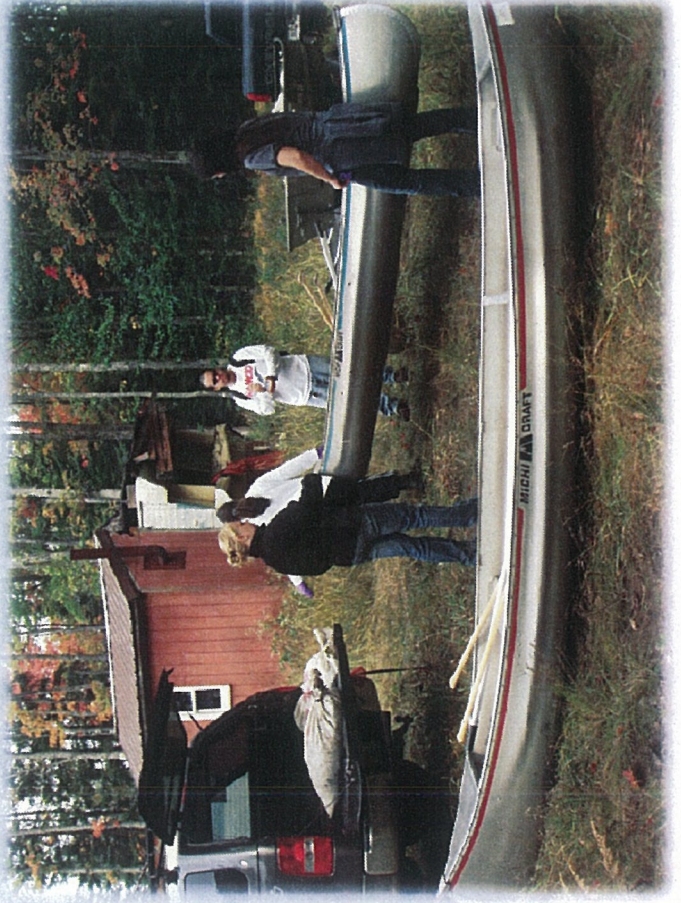


Photo Courtesy of the Library of Congress

Lake States National Forests and Chippewa Ceded Territories: Treaties of 1836, 1837, and 1842



Keweenaw Bay Wild Rice Restoration



- Growing Conditions
- Ownership of shoreline
- Accessibility

Planting



- Minimum of 3 years
- Fall
- 50 lbs. per acre

Monitoring



- Presence or Absence
- Coverage and Density
- Condition of Wild Rice



- Water quality and depth
- Other Plant Competition
- Activity-Animal and People

KitBIT

[illegible]

Annual Priorities

- Partnership Project in Progress
- Request from Natural Resources Committee
- Availability of Green Seed
- Budget
- Waterbody



Abandoned Sites

- Absence of wild rice or extremely sparse
- Water quality change
- Competition
- Budget

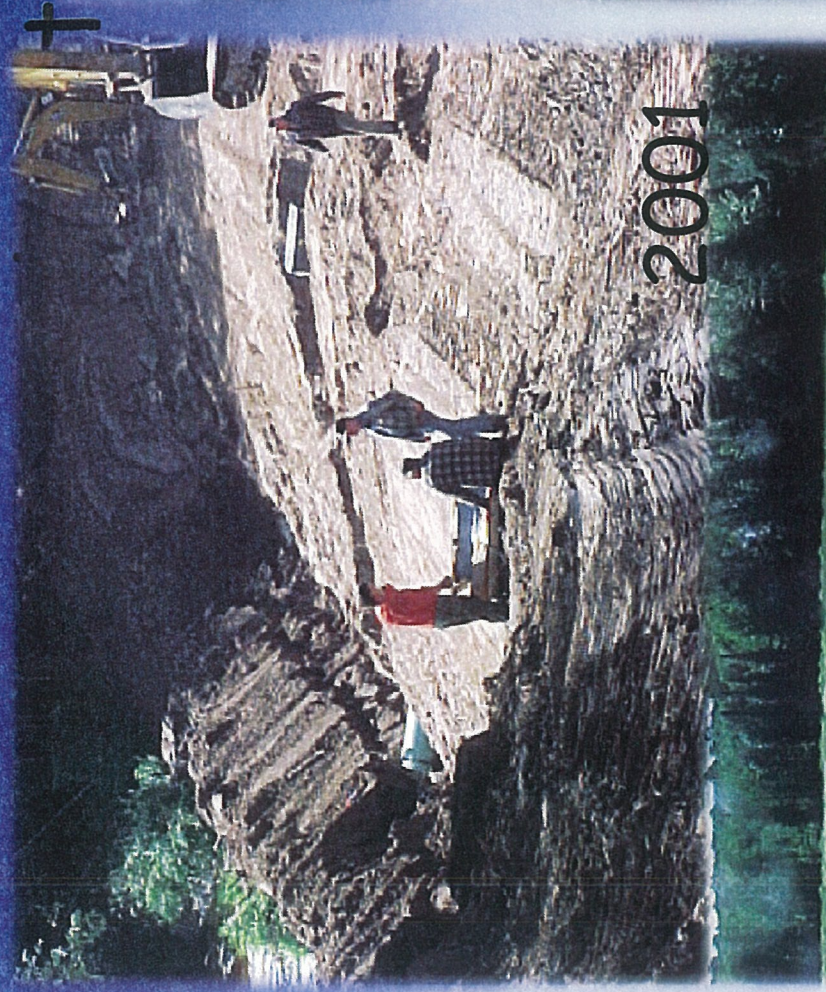


Small Wetlands

- Important for waterfowl
- Annual monitoring
- Plant if there is an abundance of wild



Robillard



2001



2001

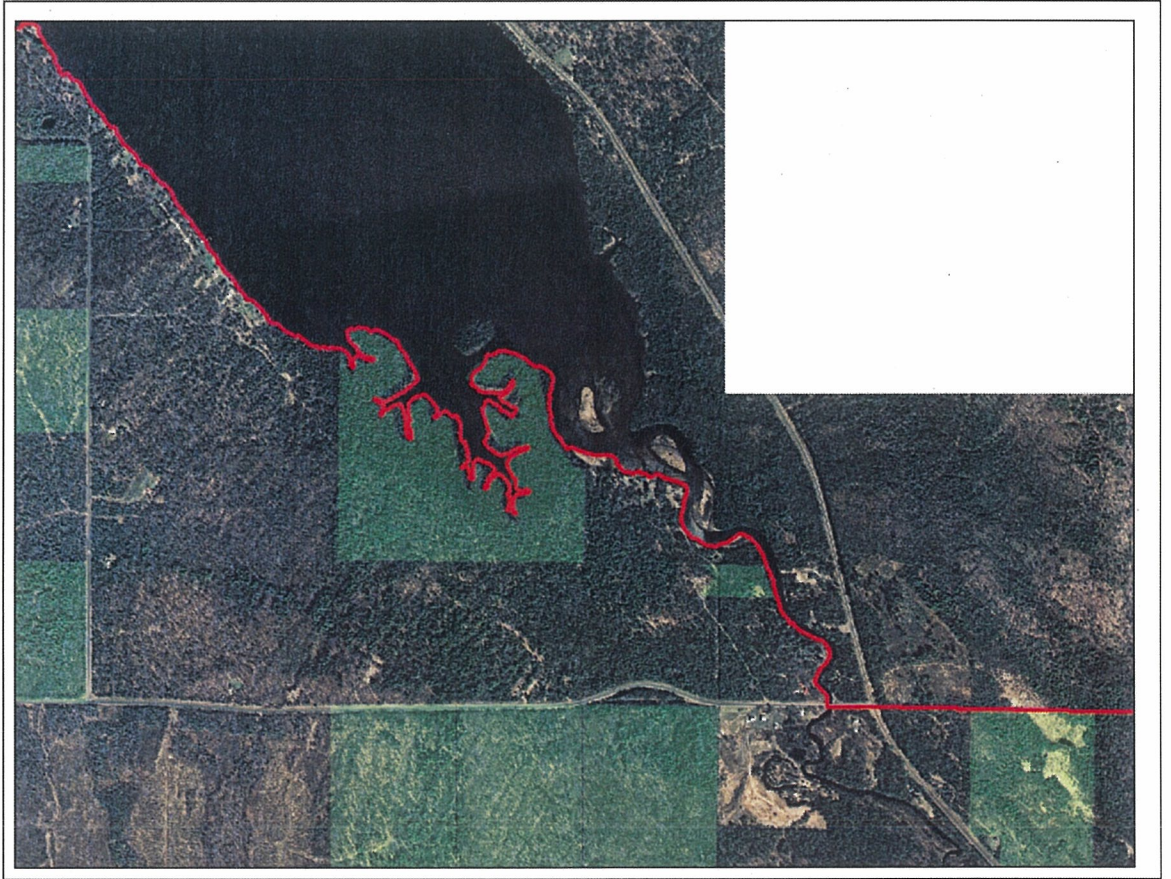
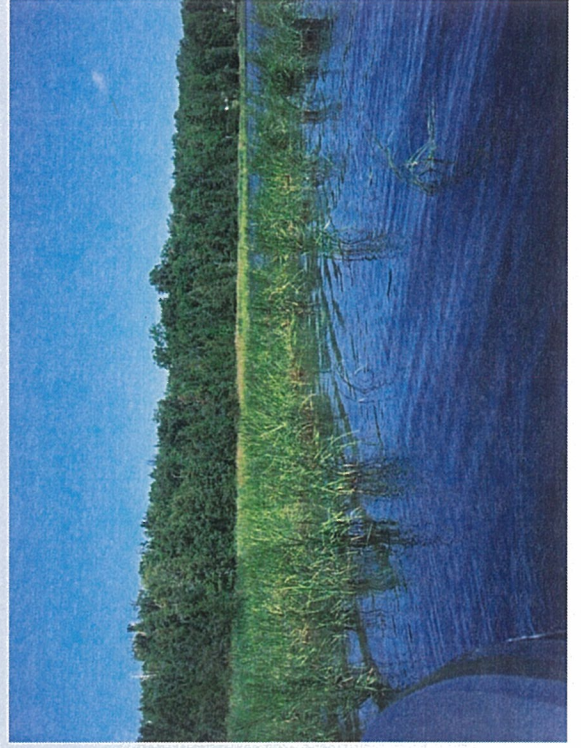
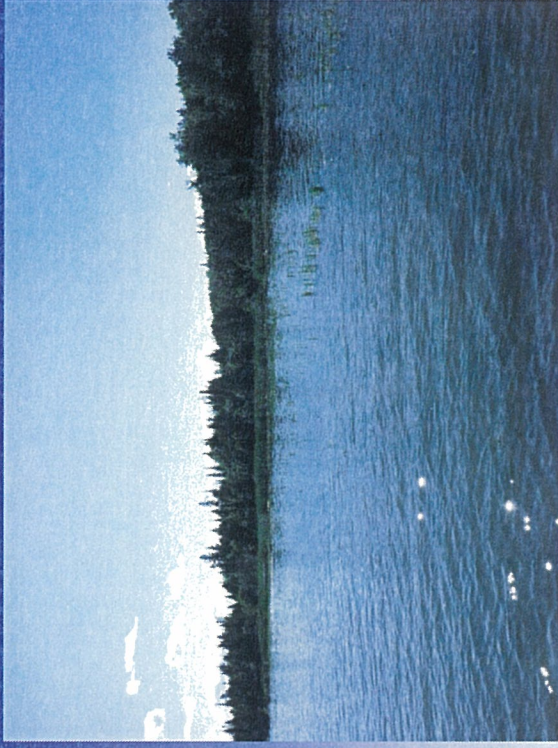


2002



2010

Huron Bay



Partnerships in

Restoration



Ottawa Lakes Project



Huron River watershed

- US Forest Service

- USDA-NRCS

- Lac Vieux Desert

- Cedar Tree
Institute



The Manoomin Project

Sand Point Sloughs

2000



2002



2010



2005



Sand Point Sloughs Harvest



Sand Point Sloughs Processing



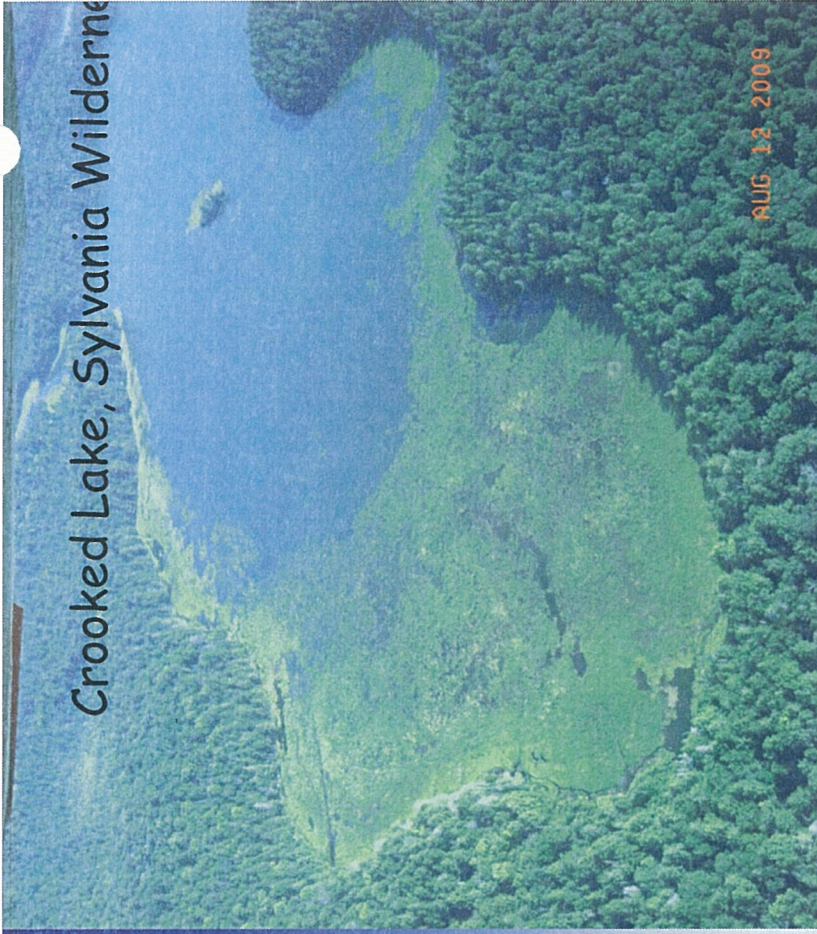
Assistance



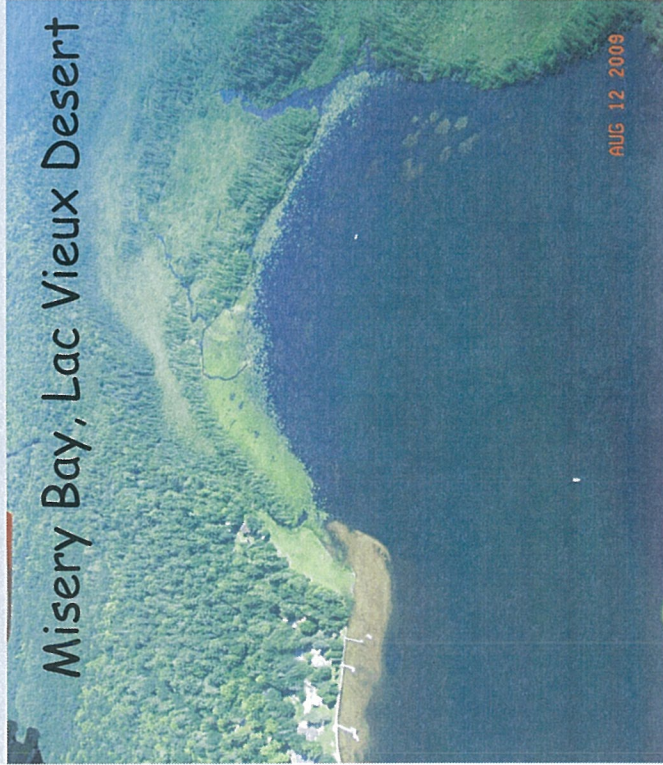
Rice Bay, Lac Vieux Desert



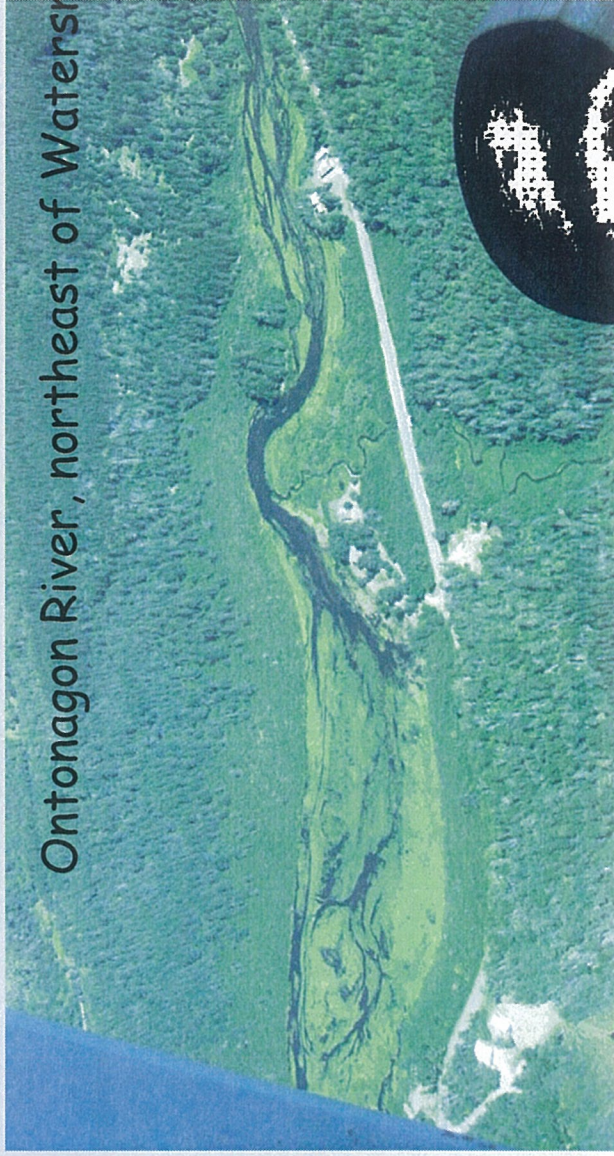
Crooked Lake, Sylvania Wilderness



Misery Bay, Lac Vieux Desert



Ontonagon River, northeast of Waters



Megwetch

- Keweenaw Bay Indian Community, Rice Chiefs, Cultural Committee and Tribal Council for being supportive of the restoration of this important species.
- Lisa David, Great Lakes Indian Fish and Wildlife Commission wild rice biologist, for sharing slides and information on northern Michigan wild rice beds.
- Peter David, Great Lakes Indian Fish and Wildlife Commission wild rice biologist, for his technical support and finding us green seed annually.
- Roger LaBine, Lac Vieux Desert, for the hosting of annual camps
- USDA Wild Rice Establishment Conservation Sheet, April 2001
- GLIFWC Wild Rice Seeding Guidelines
- Dlutkowski, Lisa. 1994 Wild Rice Enhancement Survey for the Western U.P. GLIFWC
- LaDuke, Winona and Brian Carlson. Our Manoomin, Our Life, The Anishinaabeg Struggle to Protect Wild Rice.
- 2010 Keweenaw Bay Indian Community Waterfowl Index and Wild Rice Report.
- Keweenaw Bay Indian Community Tribal Code of law: Title 10 Hunting, Fishing, Trapping and Gathering. 2003.